

REMARKS

Claims 1-33 are pending. Claims 1-15 and 24-33 were rejected. Claims 16-23 have been canceled and claims 1, 2, 4, 5, 8, 10, and 30 have been amended herein. Accordingly, claims 1-15 and 24-33 remain active in the application. In view of the claim amendments and the following remarks, reconsideration of the application is respectfully requested.

Restriction Requirement

Applicant affirms the election of Group 1, claims 1-15 and 24-33, without traverse.

Claim Rejections – 35 U.S.C. § 102

Claims 1-12, 14-15, 24-26, and 28-33 were rejected under 35 U.S.C. § 102(e) as being anticipated by Tappan U.S. Patent No. 6,473,421, ("Tappan"). Applicant respectfully traverses this rejection, and submits that Tappan fails to disclose all elements of the instant claims.

Regarding claim 1, Applicant has amended the claim in accordance with the specification, in order to more precisely define the claimed method. No new matter has been added to the application. Support for the amendments can be found, e.g., at page 4, lines 7-15, and Figures 1-4 with the accompanying text.

Claim 1 recites "identifying an address for an egress node in the network and a label value associated with that address." (emphasis added.) Tappan does not appear to disclose this step. Instead, Tappan's egress router sends an LSA with a NULL MPLS label (col. 8, ll. 4-15) that the other routers will not place in their forwarding tables (col. 8, ll. 12-13). This LSA causes other area border routers to place different labels within the LSA (see Tappan Figures 6 and 8) before forwarding. In contrast, the claim 1 method identifies a common label to be associated with the egress node address.

Claim 1 further recites the switching nodes identifying a next hop node in the network for the label value, and at intermediate nodes data is transferred to the next hop node for the label value. Tappan's routers do not do this. Tappan uses a stack of labels, such that except for the router immediately connected to the egress router (TR2), each other router identifies a next hop node in the network with a label value that is not even associated with the egress router (see Tappan Figure 6 and col. 10, ll. 36-51.) Tappan uses a label-switching scheme, where each router pops the top label and pushes new labels, as a packet traverses the network.

Claims 2-15 depend from claim 1 and are patentable for at least the same reasons. Further, regarding amended claim 2, claim 2 contains the further limitation of receiving the

egress node address and associated label value during a label 3 flooding stage. Tappan also fails to disclose this limitation. Tappan discloses a label-flooding process that, in addition to the distinctions discussed above, is separate from the flooding process that advertises addresses available through an egress node. (col. 6, ll. 10-32, describing BGP messages used to advertise addresses).

Amended claim 5 is further patentable for similar reasons, at it recites that the address and label value are received together via a flooding protocol.

Amended claim 8 recites using a SPF protocol to identify the next hop node for the label value. Tappan fails to recite running an SPF protocol on label values.

Amended claim 10 recites that the address and label value are received via an Opaque LSA. Tappan fails to disclose this mechanism. Instead, Tappan manipulates an External LSA so that it will not be interpreted as advertising an external route. It is noted that Tappan's method does not even allow Tappan's egress router to specify an MPLS address (other than NULL) with the manipulated External LSA.

Regarding claim 11, the Examiner has not provided a citation to Tappan for the assertion than Tappan discloses multiple label values in his external LSA. Applicant failed to locate any reference in Tappan that teaches providing multiple label values in the LSA for the same egress node address.

Regarding claim 12, the Examiner asserts that if Tappan's label-switching routers are implemented in ATM switches, the label could be configured to include a QoS. As a first matter, the Examiner's statement acknowledges that ATM switches operate by label-switching, instead of by flooding a label. Applicant respectfully requests that the Examiner provide a reference to Tappan that discloses propagating a QoS value with a network-wide label value.

Turning now to claim 24, that claim recites among other things "an ingress node that establishes a layer 2 logical point-to-point connection through the intermediate nodes to the egress node by assigning a label to the Ethernet frames that the intermediate nodes associate with the identified next hops along the point-to-point connection." As discussed above, Tappan discloses the ingress node assigning multiple labels to a frame, and each intermediate node manipulates the label stack. Thus Tappan has no label assigned by the ingress node that the intermediate nodes associate with next hops—each node requires its own unique label stack.

Dependent claims 25-33 are patentable at least for the same reasons as claim 24. Furthermore, amended claim 30 recites an Opaque LSA, which as discussed above regarding claim 10, is not disclosed by Tappan.

Regarding claim 31, Applicant disagrees at least for the reasons presented above for claim 12.

Regarding claim 32, each of Tappan's ingress nodes presumably each would assign a different stack of label values, and each intermediate node uses different labels to identify a next hop. Thus Tappan fails to disclose using the same label value, as claimed.

Based on the claim amendments and preceding arguments, Applicant respectfully submits that the rejected claims are each patentable over Tappan, and Applicant respectfully requests allowance of the same.

Claim Rejections – 35 U.S.C. § 103

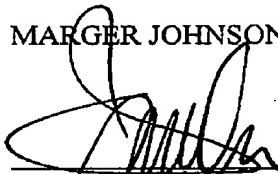
Claims 13 and 27 were rejected under 35 U.S.C. § 103(a) as being unpatentable over Tappan in view of Hurren et al. U.S. Patent No. 6,788,681, ("Hurren"). Applicant respectfully submits that the rejection fails to present a *prima facie* case of obviousness, as Tappan and Hurren fail to disclose all elements of the rejected claims. The Examiner is respectfully referred to the discussion above regarding amended claim 1 and claim 24, identifying at least some of the elements that are not taught by Tappan. To Applicant's understanding, Hurren fails to teach any of the elements that are missing from these claims, and are thereby missing by incorporation from dependent claims 13 and 27. Accordingly, Applicant requests that this rejection be withdrawn.

Conclusion

For the foregoing reasons, reconsideration and allowance of claims 1-15 and 24-33 of the application as amended is solicited. The Examiner is encouraged to telephone the undersigned at (503) 222-3613 if it appears that an interview would be helpful in advancing the case.

Respectfully submitted,

MARGER JOHNSON & McCOLLOM, P.C.


Graciela G. Cowger
Reg. No. 42,444

MARGER JOHNSON & McCOLLOM, P.C.
1030 SW Morrison Street
Portland, OR 97205
(503) 222-3613
Customer No. 20575

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Signature


Lauren Ballard-Gemmel